

REMARKS

Reconsideration of the second Office action issued in connection with the above-identified patent application is requested in view of the foregoing amendments and the following remarks. Prior to entry of the above amendments, claims 1-31, 34-58 and 63-71 were pending and stand rejected. By the above amendments, claims 23-26 and 40 are cancelled without prejudice, claims 1, 27-31, 38, 41-43, and 56 are amended, and new claims 72-76 are added.

As an initial matter, Applicant thanks the Examiner for his time and comments in a telephone interview with Applicant's undersigned attorney on May 17, 2004. In the interview, the presently pending independent claims were discussed in view of the cited references to Beal and West. More particularly, the differences between the thermoplastic resins disclosed in the cited references and the thermoset resins and epoxies recited in the presently pending claims were discussed.

All of the claims that were pending prior to entry of the above amendments stand rejected under 35 U.S.C. § 103 as being obvious over Published PCT Patent Application Serial No. WO 00/37878 to Beal in view of U.S. Patent No. 5,616,642 to West. As set forth in the Office action, Beal is cited as disclosing a frangible projectile having a density in the range of 13-14 g/cc and which includes a tungsten component, a tin component and a polymer binder, with the binder forming 0.1% of the projectile, and the tungsten component forming

50% or less of the component. The claims stand rejected as being obvious over a proposed modification of Beal to include the cartridge components of West, which was discussed in the prior Office action and Applicant's response thereto.

Applicant has studied the cited references, in view of the pending claims, and respectfully disagrees with the Examiner that the proposed combination is properly made or discloses the subject matter recited in the previously pending claims. However, the presently pending independent claims recite that the non-metallic binder component includes at least one of a thermoset resin or epoxy. Support for this language is found in the both the original and previously amended claims, as well as throughout the specification. Illustrative examples of support from the specification include page 14, lines 1-5, and page 17, lines 1-3. As these terms imply, the thermoset resins or epoxies are adapted to be hardened or otherwise solidified by heating or by other actuation, such as the addition of a chemical agent, pressure, (an)aerobic conditions, etc.

In contrast to this structure, the cited reference to Beal specifically discloses only the use of a thermoplastic resin, and more particularly, requires the use of "0.1%, by weight, of a fine particle oxidized polyethylene homopolymer" (see, for example, page 6, lines 7-9, of Beal). Although not relied upon in this manner in the second Office action, the cited patent to West also discloses only the use of thermoplastic resins. In fact, West requires the use of two different

thermoplastic resins, namely, a thermoplastic polyester resin and a thermoplastic ionomer resin.

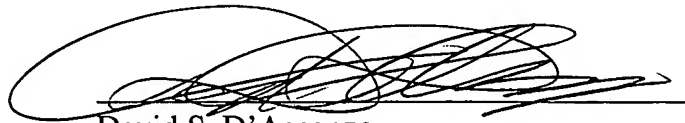
Applicant trusts that the Examiner recognizes the stark difference between thermoset resins and epoxies, as compared to thermoplastic resins. Simply put, thermoset resins and thermoplastic resins are essentially opposites of each other. Thermoset resins have the property of being solidified by heating or otherwise actuating the resin, while thermoplastic resins have the property of repeatably softening when heated and hardening when cooled. Epoxies are often considered to be thermoset resins, but otherwise are resins or other materials that are hardened (typically, permanently) when actuated, such as through the addition of heat, pressure, oxidant, water, etc. Therefore, the cited references to Beal and West not only fail to disclose the composition recited in the amended independent claims, but also disclose a composition having a non-metallic binder component that teaches away from the non-metallic binder component recited in the pending claims.

With the entry of the above amendments, and for the reasons discussed herein, Applicant submits that all of the issues raised in the second Office action have been addressed and overcome. If there are any remaining issues or if the Examiner has any questions, Applicant's undersigned attorney may be reached at the number listed below. Similarly, if the Examiner believes that a

telephone interview may be productive in advancing prosecution of the present application, the Examiner is invited to contact Applicant's undersigned attorney.

Respectfully submitted,

KOLISCH HARTWELL, P.C.

A handwritten signature in black ink, appearing to read 'David S. D'Ascenzo', is written over a horizontal line. The signature is stylized with loops and flourishes.

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